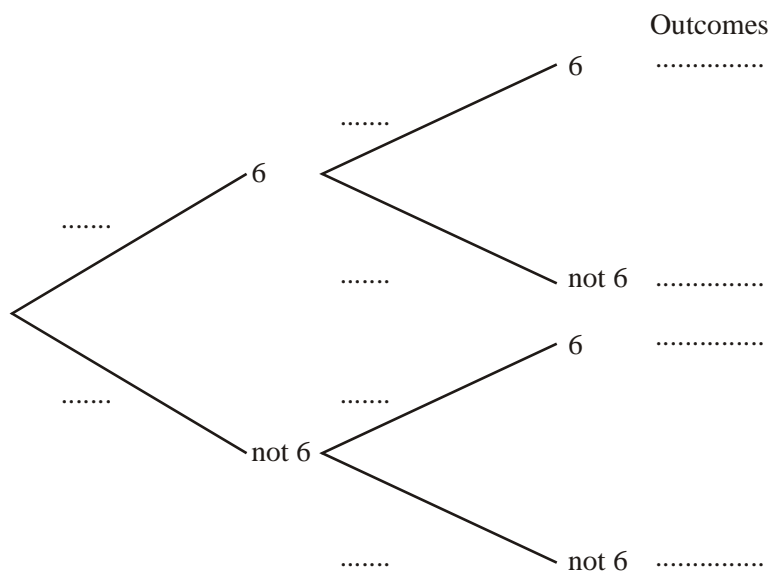


1. Two ordinary, 6-sided dice are rolled and the total score is noted.

(a) Complete the tree diagram by entering probabilities and listing outcomes.



(b) Find the probability of getting one or more sixes.

Working:

Answer:

(b)

(Total 4 marks)

2. A bag contains 10 red balls, 10 green balls and 6 white balls. Two balls are drawn at random from the bag without replacement. What is the probability that they are of different colours?

Working:

Answer:

.....

(Total 4 marks)

3. A painter has 12 tins of paint. Seven tins are red and five tins are yellow. Two tins are chosen at random. Calculate the probability that both tins are the same colour.

Working:

Answer:

.....

(Total 6 marks)

4. Dumisani is a student at IB World College.

The probability that he will be woken by his alarm clock is $\frac{7}{8}$.

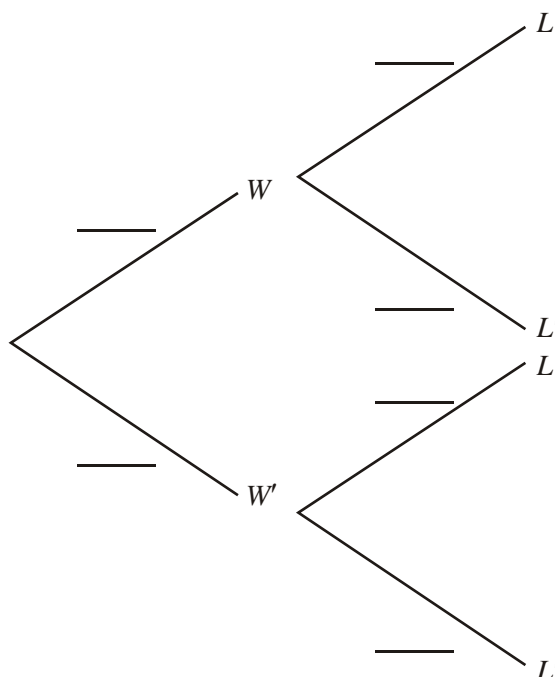
If he is woken by his alarm clock the probability he will be late for school is $\frac{1}{4}$.

If he is not woken by his alarm clock the probability he will be late for school is $\frac{3}{5}$.

Let W be the event “Dumisani is woken by his alarm clock”.

Let L be the event “Dumisani is late for school”.

- (a) Copy and complete the tree diagram below.



(4)

- (b) Calculate the probability that Dumisani will be late for school.

(3)

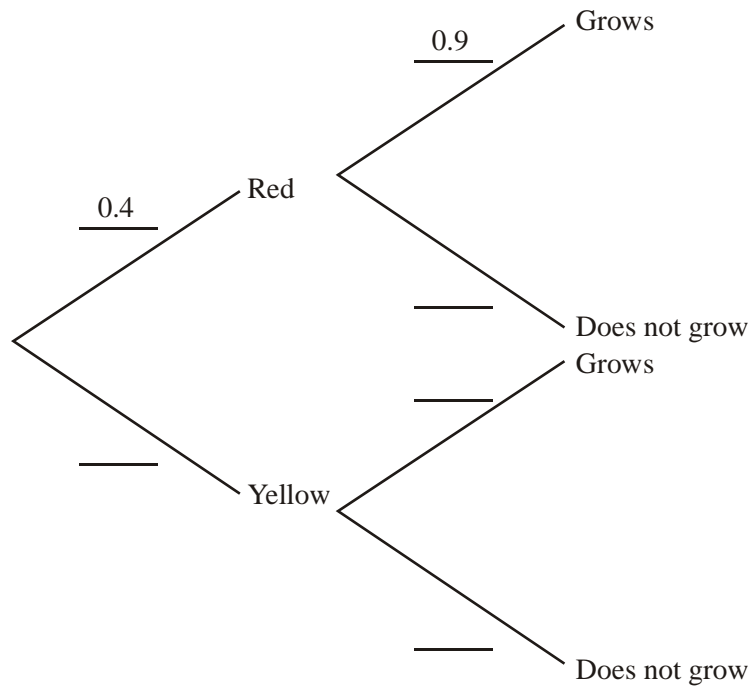
- (c) Given that Dumisani is late for school what is the probability that he was woken by his alarm clock?

(4)

(Total 11 marks)

5. A packet of seeds contains 40% red seeds and 60% yellow seeds. The probability that a red seed grows is 0.9, and that a yellow seed grows is 0.8. A seed is chosen at random from the packet.

(a) Complete the probability tree diagram below.



(3)

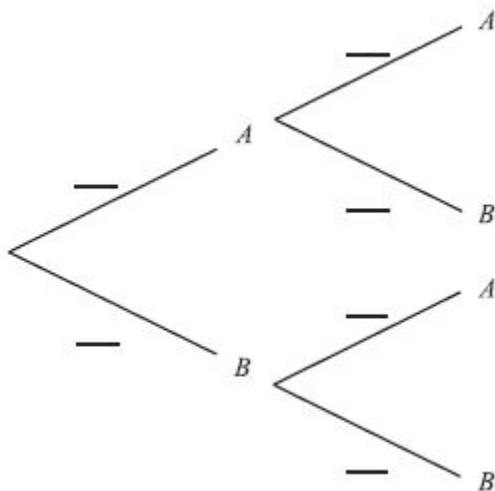
- (b) (i) Calculate the probability that the chosen seed is red and grows.
(ii) Calculate the probability that the chosen seed grows.
(iii) Given that the seed grows, calculate the probability that it is red.

(7)

(Total 10 marks)

6. A bag contains four apples (A) and six bananas (B). A fruit is taken from the bag and eaten. Then a second fruit is taken and eaten.

(a) Complete the tree diagram below by writing probabilities in the spaces provided.



(3)

(b) Find the probability that one of each type of fruit was eaten.

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(3)

(Total 6 marks)